Syracuse University

**Course Tag Reflection Exemplar**
**Scientific Inquiry & Research Skills**

**Jacklin Kornfilt, Ph.D.**
**LIN 441: Syntactic Analysis**

**Identify the course learning objectives in the syllabus that are clearly aligned to Scientific Inquiry & Research Skills and respective assignment(s).**

1. Students will use problem sets to practice argumentation and analytical skills.
2. Students will learn how to base their arguments on linguistic facts and how to couch them in scientific approaches.
3. Students will learn how to propose creative solutions.

**Explain the connection between specific assignment(s) and Scientific Inquiry & Research Skills. At least 30% of the course grade must engage students in the selected competency for the course to be tagged.**

Problem sets will be assigned weekly, on Wednesdays (with the exception of exam days)and are due at the beginning of lecture on the day due, i.e. usually the following Monday. These problems will be discussed in class, and classroom participation via those discussions will contribute to the course grade: 20%. In addition, a mid-term take-home exams will be given where similar problems will be assigned, and that exam will be discussed in class, as a learning experience and as a preparation for the final exam. That exam will be worth 20% of the course grade. The problem sets assigned as homework as well as in the mid-term exam will train the students in developing analytical skills and thus skills in scientific inquiry. Note that the students will be asked not only to solve problems, but to also discuss alternative solutions and to evaluate those, as well as to present (orally in class, and in writing as homework and as exam answers) their arguments in favor of or against different approaches, thus teaching them to apply criteria of scientific evaluation. All of those skills will be tested via the final take-home exam, which is worth 30% of course. Finally, research skills will be taught and tested via the term paper, in which students have to discuss, summarize, and evaluate prior primary literature on the topic they have chosen, and they have to develop their own analysis and proposals in a scientific framework (with the help of the faculty member, via in-person or online meetings), arguing in favor of their own proposals. The term paper contributes 30% to the course grade.

**Describe in detail the instructional strategies faculty use to intentionally teach Scientific Inquiry & Research Skills in the course.**

Faculty guide students throughout the semester in this course, via weekly written homework which is returned promptly, with copious comments, and via guided classroom discussion. In addition, one take-home mid-term exam checks on the students' progress; this exam is also graded and returned promptly, with comments, and is discussed in class. Before this exam, as well as before the final exam, there is a detailed review session, in which terminology, approaches to solutions, and criteria for evaluating competing solutions and approaches are discussed. Finally, individual meetings of the faculty with each student about their term paper supports the students' progress in developing skills in research and scientific argumentation and evaluation.

**Describe the feedback tool(s) faculty use to support students' competency development on Scientific Inquiry & Research Skills.**

The course faculty is constantly available to work with students throughout the semester. Detailed feedback is provided on all the assignments and the take-home exam, as well as on the drafts of the term paper. Students are encouraged to contact faculty outside the classroom, via office hours, both in person and online.